MR Form 3
(Revised 1984)

ANNUAL OPERATIONS AND PROGRESS REPORT

From Month/Year Jan. 1983
to Month/Year Jan. 1984

(To be submitted for each mining operation at the end of each calendar year to the Division at this address:)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
4241 State Office Building
Salt Lake City, Utah 84114

OPERATOR: CHEVRON RESOURCES CO. MINE NAME: VERNAL PHOSPHATE OPERATION

ADDRESS: Manila Star Route
Vernal, UT 84078

PERMIT NUMBER AND DATE OF PERMIT: ACT/047/008

REPRESENTATIVE:

SECTION(S): Various TOWNSHIP(S): 2&3 South RANGE(S): 21 East

MINERAL(S) MINED: Phosphate

STATE AND/OR FEDERAL MINERAL LEASE NUMBERS:

SPECIAL USE PERMITS AND/OR RIGHTS-OF-WAY:

Section 40-8-15 and Rule M-8 of the Utah Mined Land Reclamation Act, requires each operator to include with this report an up-dated map and plan prepared in accordance with Rule M-3, as outlined in the requirements for annual report maps in Appendix I, providing a detailed status of all mining and reclamation activities which have occurred during the past year.

The report should include:

MINING:

(a) Tabulation of acreage disturbed (by pits, roads, facilities, etc.) during the report period with illustration on a current map.

Disturbance	Acreage
Pit	259
Roads	68
Facilities	116
Waste Dumps (Tailings)	181
Other	

(b) Tabulation of acreage affected to date (by years).

Date by Year		Acreage (Total
1975	Panel A & Camp Canyon	25
1976		27.4
1977		27.4
1978		27.4
1979		27.4
1980		27.4
1981	Panel C	40
1982		41
1983		41

(c) Tabulation of all topsoil (new) stockpile volumes (see chart below) and date of stockpiling.

SOIL TABULATION CHART

Area Affected (in mining sequence) (If more space is needed, please attach.)	Area 1	2	3	etc.
Acreage of Area	41 Acres Panel "C"			
Depth of Topsoil Removal (inches)	7" Ave.			
Depth of Topsoil Replacement (inches)*	6" Ave.			
Estimate of Topsoil Volume Salvaged (yd^3 or ac ft)	38338 yd^3			
Volume Actually Salvaged (yd^3 or ac ft)	38000 yd^3			
Volume Required for Reclamation (yd^3 or ac ft)	33073 yd^3			
Surplus or Deficit Volume (yd^3 or ac ft)	+4927 yd^3 (Used on operational Dist.)			
Storage Status (short- or long-term)	Short Term			

Soil Tabulation Chart (continued)

Area Affected (in mining sequence)	Area 1	2	3	etc.
Storage Location	Panel C			
Area Where Soil Has Been Used (if not stored)	" "			
Running Total (all stockpiles) (yd^3 or ac ft)	40,000 yd^3			
Short-term	15,000 yd^3			
Long-term	25,000 yd^3			

*Of previously stripped area recently reclaimed.

(d) Tabulation of all (newly removed) out-of-pit spoil volumes, date of placement and illustration on a map.

Area	Date	Acreage
All spoils are directly moved into mined out areas and immediately re-contoured. (i.e. No spoils are moved twice, nor stored).		

(e) Tabulation of quantity of commodity mined.

	Commodity	Tonnage
(Mined)	Phosphate	1378 Million Tons
(Milled)	" "	" "

(f) Description of any new construction during the report period with illustration on a map, including, but not limited to:

1. Buildings and support facilities.
Mine Shop (Began Construction) Located Panel C North of SAG Mill 60 X 300

2. Roads.
NONE

3. Diversion ditches, collector ditches, interceptor ditches, etc.
NONE

4. Culverts.
NONE

5. Sediment ponds, containment ponds.
NONE

6. Monitoring sites (vegetative, air quality, surface subsidence, surface water or ground water, etc.).
NONE

7. Topsoil stockpiles.
SEE PAGE 3

(g) Description of any environmental problem areas with a proposed plan for mitigation and illustration on a map, including, but not limited to:

1. Pit stability problems.
NONE

2. Subsidence.
NONE

3. Accidental water discharge, dam failure, etc.

NONE

4. Slumping, sliding or erosion.

NONE

5. Revegetation problem areas.

NONE

6. Existence and location of unsuitable (toxic) overburden.

NONE

RECLAMATION:

(a) Tabulation of the acreage reclaimed during the report period with illustration on a map, distinguishing between:

1. Backfilled, graded and contoured areas.

Area	Acreage
Panel "A"	97
Panel "C"	20
Refer to Map	

2. Topsoiled areas.

Area	Acreage
Panel "C"	50% of 1983 Block (20 Acres)

3. Seeded areas.

Area	Acreage
Panel "A"	97 Acres

4. Reseeded areas (areas previously seeded, then seeded again).

Area	Acreage
NONE	

(b) Tabulation of total acreage reclaimed (seeded with permanent seed mix) to date by years with illustration on an updated map:

Year	Acreage
1975	
1976	25
1977	
1978	13
1979	2
1980	20
1981	26
1982	88
1983	97
1984	

(c) Description of the reclamation procedures used during the report period, including:

1. Average depth of topsoil applied.
Mackentire tongue material at 3" - 6" on some areas where material was available.

2. Type of seed (species) used for seeding during the report period.
See Attachment for Seed Mix

3. Date of seeding during the report period.

Spring April 4 through May 15

Outplantings set out May 4. through June 5.

Fall

4. Seeding procedures used.

(Hand broadcast or drilled or any other).
Drilled with Laird Rangeland Seed Drill

5. Rate of seed application.

Pounds Per Acre of Pure Live Seed (PLS) (if varied, please explain)
See Attachment

6. Type and rate of fertilizer applied.
None

7. Type and rate of mulch applied.
3000 lbs/acre fiber mulch (hydromulch) applied to area on Brush Creek which was hydroseeded.

8. Rate of irrigation water applied, if any. Please describe any type of sprinkling, or water applied (water truck, etc.).
none

9. Revegetation test plot information.

(Cover, density, productivity, etc.)
See Native Plants Reveg. Test Plat results, December 1983.

10. Soil analysis results.

No samples have been taken since mine plan was handed in in January

(d) Description of results of previous revegetation efforts, including: (This should be done as applicable.)

1. Types (species) of seed that have germinated and are growing.

Refer to Reclamation Prior to 1983 and Native Plants Reveg Test Plot 1983 (attached).

2. Types (species) of seed that are not growing successfully.

Refer to Reclamation Prior to 1983 and Native Plants Reveg Test Plot 1983 (attached).

3. Areas experiencing problems with weeds and weed types.

None

4. Significant erosional problems.

None

5. Areas of unsuitable overburden on the surface as related to revegetation failure.

None

6. Procedures used or proposed to correct these problems.

None

7. Acreage and dates of release (upon inspection by the State) of revegetated areas.

Area	Date	Acreage
Panel A	11/1/83	12.17
Panel A	11/1/83	.92
Panel A	11/1/83	3.44
Panel A	11/1/83	2.29
Panel A	11/1/83	2.30

8. Results of soil analysis.

N/A

(e) Summarization of the reclamation costs incurred during the report period, including itemized costs for each operation (i.e., grading, topsoil replacement, seeding, etc.) and for each type of disturbance (i.e., spoil, haul roads, facilities removal, etc.) on a per acre basis.

	Acres		Cost/Acre
1. Grading	97	$740	
2. Backfilling	73		
3. Contouring	97		
4. Topsoil Replacement	50		$560
5. Seeding	100		$ 51
A. Seedbed Preparation			
B. Mulch	2.3	$1500	
C. Fertilizer	2.3		
D. Seed	100		$ 44
6. Other			

BOND INFORMATION:

A. An updated bond estimate should be included, if required in the Division's approval of the Mining and Reclamation Plan (MRP) or if changes to the MRP have occurred, including a detailed itemization of actual/estimated reclamation costs as outlined in the RECLAMATION section above. The date of the release of revegetated areas from further responsibility for a partial bond release, if applicable, should also be included.

	Amount	Type	Date Posted
Present Bond	$ 1,000,000	Cash Bond	1/26/84

Increased disturbance, if any:

Increased Bond Amount (attached reclamation estimate).

B. Bond release.

Acres	Bond Amount Released	Date
22.3		

ADDITIONAL INFORMATION:

Supply any additional information as requested by the Division related to:

(a) Permit stipulations (status).
(b) Other special conditions (status).

Demolition and removal of New Mine Shop Built in Panel "C; during 1984. $32,080.
Disturb additonal 25 acres in 1984 (Panels B, C & D). Both estimates attached

STRUCTURE MINE SHOP (1984)

		MAN OR MACHINE DAYS	DAILY RATE	TOTAL EXPENDITURES
Hourly Employees	10 for 15 Days	150	80	12,000
Supervisors	1 for 15 Days	15	120	1,800
Crane w/Operator		10	665	6,650
Tractor Trailer w/Operator		12	415	4,980
Front End Loader w/Operator		10	665	6,650
Other				
Other				
			TOTAL	32,080

NOTES:

RECLAMATION OF 1984 DISTURBANCE
PANELS B, C & D

Estimated Acreage of Proposed Disturbance	25 Acres
Contouring D-9 1.5 ac/da	$ 21500.00
Top Soil Placement, 633-D, 4 Ac/Da @ $2120/da	13250.00
Seed & Fertilizer with D-4, 10 ac/da @ $320/da	800.00
Seed, $150/Acre	3750.00
Fertilizer, $45/acre	1125.00
Total	$ 40425.00

SEED MIXES 1983

#1 & #2 Used In Panel A

#1	PLS/Acre/Drilled
Agropyron dasystachyum	2.25
A. intermedium	1.50
A. smithii 'Rosana'	1.50
A. spicatum	1.50
A. tricophorum 'Luna'	3.00
Elymus junceus	1.50
#2	
Oryzopsis hymenoides 'Nezpar'	1.50
Astragalus cicer	2.25
Medicago sativa 'Nomad'	.75
Melilotus officinalis	.75
	16.50

#3 & #4 Used on Brush Creek

#3	PLS/Acre/Broadcast
Agropyron sibericum	4.0
A. smithii 'Rosana'	4.0
A. trichophorum 'Luna'	4.0
A. intermedium	4.0
A. desertorum	2.0
#4	
Oryzopsis hymenoides 'Nezpar'	2.0
Medicago sativa 'Nomad'	2.0
Melilotus officinalis	2.0
Astragalus cicer	4.0
	28.0

APPENDIX I

ANNUAL REPORT MAPS

1. Maps must be clear and legible contour maps or recent aerial photos. The scale should be 1 inch = 500 feet to adequately show topographic features.

2. Map sheets should be of a reasonable size, not to exceed 48 inches on a side.

3. Maps must have a title block with:

   A. Map title.
   B. Name and address of permittee.
   C. Permit and amendment numbers.
   D. Annual report period.
   E. Scale, north arrow, contour interval, date of photography, etc.

4. All maps must show:

   A. Legal subdivisions.
   B. Permit area boundary clearly shown and labelled.
   C. Amendment areas clearly shown and labelled.
   D. Contour features.

5. The following features should all be clearly identified:

   A. Topsoil stockpiles (numbered and with volumes).
   B. Settling ponds and sediment control structures.
   C. Haul roads.
   D. Pits identified by location, name, number, etc.
   E. Ramps (numbered).
   F. Out-of-pit spoil dumps.
   G. All waste disposal sites including, but not limited to:
      1. Landfill sites.
      2. Carbonaceous waste dumps.
   H. Diversion ditches.
   I. Monitoring sites.

6. All areas to be affected by mining and reclamation in the coming year should be outlined and labelled.

To Pam
File ACT/047/008
JIM
APR 0 5 1984

Chevron Resources Company
A division of **Chevron Industries, Inc.**
Manila Star Route, Vernal, UT 84078 • Phone (801) 789-2233

April 2, 1984

Mr. James W. Smith, Jr.
Coordinator of Mined Land Development
Utah Division of Oil, Gas & Mining
4241 State Office Bldg.
Salt Lake City, UT 84114

Dear Mr. Smith:

Enclosed you will find the annual operations and progress report for Chevron Resources Vernal Phosphate Operation for the year 1983.

Accompanying this report is two copies of Native Plants' Revegetation Test Plot Results for December 1983; one copy of Reclamation prior to 1983; Seed mixes, 1983; Demolition estimate for New Mine Shop; Reclamation estimate for proposed 1984—Panels B, C and D; a 1-500 map with Mylar overlay and Final bonding calculations used for the mine and reclamation plan submitted in 1984.

Should you have any questions concerning the report or any of the accompanying attachments, please contact me at the above phone and address.

Sincerely,

O.L. Fyock
Environmental Coordinator

OLF:jl

cc: R.D. Haddenham

RECEIVED
APR 4 1984
DIVISION OF
OIL, GAS & MINING

LIST OF ATTACHMENTS

- Native Plants Revegetation Test Plot Results (Dec. 1983)
- Reclamation Prior to 1983
- Seed Mixes 1983
- Demolition Estimate for New Mine Shop.
- Reclamation Estimate for Proposed 1984, Panels B, C & D
  * 1:500 map with Mylar Overlay
- Final Bonding Calculations used for Mine and Reclamation Plans